



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D3167-1

Job Sheet 214403



Part No: D3167-1

Job Qty: 4 pcs

Part Name: Bearpaw



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 10/22/20

Job Tracking No:

Due Date: 12/18/20

Created By: Jennifer Renwick

Type: Stock

Description: SIOP

Note: DWG REV A1

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
120	Waterjet - Flow - 1	4 pcs	12/17/20	12/17/20	0.17	1.36	Waterjet - Flow		20/11/12
130	HAAS 4 Axis - B4B	4 pcs	12/18/20	12/18/20	1.00	6.56	HAAS - 1 - B4B		ALA 20/11/23 / DJR-1-2
							HAAS - 2 - B4B		
							HAAS - 3 - B4B		
							HAAS - 4 - B4B		
140	QC 2	4 pcs	12/18/20	12/18/20	0.00	0.00	QC 2 - 1		
							QC 2 - 12		
							QC 2 - 14		
							QC 2 - 17		
							QC 2 - 19		
							QC 2 - 2		
							QC 2 - 20		
							QC 2 - 22		
							QC 2 - 23		
							QC 2 - 25		
							QC 2 - 32		
							QC 2 - 33		
							QC 2 - 35		
							QC 2 - 39		
							QC 2 - 4		
							QC 2 - 40		
							QC 2 - 44		
							QC 2 - 45		
							QC 2 - 48		
							QC 2 - 49		
							QC 2 - 50		
							QC 2 - 51		
							QC 2 - 52		
							QC 2 - 57		
							QC 2 - 62		
							QC 2 - 63		

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				QC 2 - 8	
				QC 2 - 66	
				QC 2 - 64	
				QC 2 - 65	
				QC 2 - 5	
				QC 2 - 71	
				QC 2 - 73	DT 20-11-24
				QC 2 - 69	
				QC 2 - 76	
				QC 2 - 86	
				QC 2 - 83	
150	QC 8	4 pcs	12/18/20	0.00 0.00	
				QC 8 - 12	
				QC 8 - 14	
				QC 8 - 17	
				QC 8 - 20	ST 20-11-25
				QC 8 - 25	
				QC 8 - 3	
				QC 8 - 32	
				QC 8 - 33	
				QC 8 - 35	
				QC 8 - 39	
				QC 8 - 4	
				QC 8 - 44	
				QC 8 - 45	
				QC 8 - 49	
				QC 8 - 58	
				QC 8 - 8	
				QC 8 - 9	
				QC 8 - 68	
				QC 8 - 67	
				QC 8 - 1 (A)	
				QC 8 - 47	
				QC 8 - 40	
				QC 8 - 52	
				QC 8 - 23	
				QC 8 - 57	
				QC 8 - 76	
				QC 8 - 61	
				QC 8 - 66	
				QC 8 - 73	
				QC 8 - 82	
151	Packaging 3-1 - Stock - B4B	4 pcs ✓	12/18/20	0.00 0.00	
				Packaging 3 - 1 - B4B	
				Packaging 3 - 2 - B4B	
				Packaging 3 - 3 - B4B ✓	NOV 25 2020 DAS 80
				Packaging 3 - 4 - B4B	ST 454 9-89
				Packaging 3 - 5 - B4B	
				Packaging 3 - 6 - B4B	
				Packaging 3 - 7 - B4B	
				Packaging 3 - 8 - B4B	
				Packaging 3 - 9 - B4B	
				Packaging 3 - 10 - B4B	
				Packaging 3 - 11 - B4B	
				Packaging 3 - 12 - B4B	
				Packaging 3 - 13 - B4B	
				Packaging 3 - 14 - B4B	
				Packaging 3 - 15 - B4B	
				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	

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					Packaging 3 - 19 - B4B	
					Packaging 3 - 20 - B4B	
					Packaging 3 - 21 - B4B	
					Packaging 3 - 22 - B4B	
					Packaging 3 - 23 - B4B	
					Packaging 3 - 24 - B4B	
					Packaging 3 - 25 - B4B	
					Packaging 3 - 26 - B4B	
					Packaging 3 - 27 - B4B	
					Packaging 3 - 28 - B4B	
					Packaging 3 - 29 - B4B	
					Packaging 3 - 30 - B4B	
					Packaging 3 - 31 - B4B	
					Packaging 3 - 32 - B4B	
					Packaging 3 - 33 - B4B	
					Packaging 3 - 34 - B4B	
					Packaging 3 - 35 - B4B	
					Packaging 3 - 36 - B4B	
					Packaging 3 - 37 - B4B	
190 QC 21 - SA	4 pcs	12/18/20	0.00 0.00	QC 21 - SA - 21	DAS	
				QC 21 - SA - 70	21	
				QC 21 - SA - 9	9-ss	
				QC 21 - SA - 77		
				QC 21 - SA - 28		
Part Op 120 - Cut Blank as per File D3167-1_BLANK Descriptions: 130 - (HAAS CNC Vertical Machine) Note: (2) Bearpaw for (1) Kit 2-Machine as per Folio FA285 and Dwg D3167 140 - (QC2- Inspect parts off machine FAI/FAIB) 150 - (QC8- Inspect parts - second check) 151 - (Identify as per dwg & Stock Location: _____) 190 - (QC21- Final Inspection - Work Order Release)						
Job BOM						
Part / Item	Component Name	Quantity	Operation	Container		
MUHMWB10	UHMW 1" Black - 48"x120" Tivar Mfg.#52480104	14.4000 sf (3.6 ea)	120-Waterjet - Flow - 1	5253828		
Job Allocations						
Operation	Component Part	Required	Inventory	Allocated		
120-Waterjet - Flow - 1	MUHMWB10	14	434	0		

Part Specifications					
Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	Bearpaw	0.060inches + 0.030 - 0.010	0.090 0.050		
2	Bearpaw	45.000Degrees ± 0.500	45.500 44.500		
3	Bearpaw	5.800inches ± 0.030	5.830 5.770		
4	Bearpaw	0.250inches ± 0.030	0.280 0.220		
5	Bearpaw	45.000Degrees ± 0.500	45.500 44.500		
6	Bearpaw	0.250inches ± 0.030	0.280 0.220	Radius	
7	Bearpaw	0.200inches ± 0.030	0.230 0.170		
8	Bearpaw	0.250inches ± 0.010	0.260 0.240		
9	Bearpaw	0.625inches ± 0.030	0.655 0.595		
10	Bearpaw	0.375inches ± 0.010	0.385 0.365		
11	Bearpaw	0.950inches + 0.030 - 0.010	0.980 0.940		
12	Bearpaw	3.210inches ± 0.030	3.240 3.180		
13	Bearpaw	19.000inches ± 0.030	19.030 18.970		
14	Bearpaw	0.260inches ± 0.005	0.265 0.255	Diameter	
15	Bearpaw	0.930inches ± 0.030	0.960 0.900	Diameter	
16	Bearpaw	0.300inches + 0.030 - 0.000	0.330 0.300		
17	Bearpaw	0.375inches ± 0.030	0.405 0.345		
18	Bearpaw	7.230inches ± 0.030	7.260 7.200		
19	Bearpaw	4.540inches ± 0.010	4.550 4.530		
20	Bearpaw	2.000inches ± 0.030	2.030 1.970		
21	Bearpaw	12.000inches ± 0.010	12.010 11.990		
22	Bearpaw	6.000inches ± 0.010	6.010 5.990		
23	Bearpaw	23.750inches ± 0.030	23.780 23.720		

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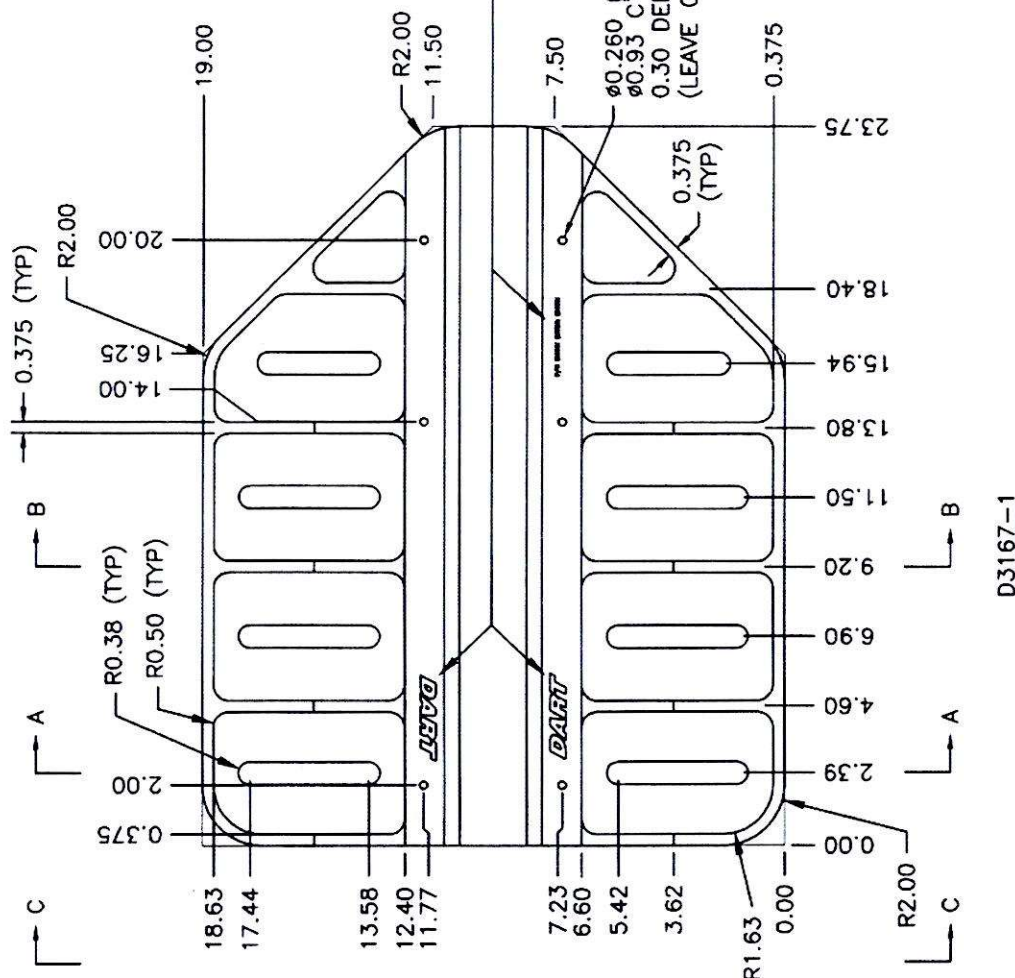
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CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3167	REV. A SHEET 1 OF 2
DATE 02.10.08		TITLE BEARPAW	SCALE 1:6
A	02.10.08	NEW ISSUE	
AI	02.12.17	5.80 WAS 5.50 <i>[Signature]</i>	

RELEASED
02.10.25 *[Signature]*

ENGRAVE LOGO TO MAX
DEPTH OF 0.012. ENGRAVE
PART AND BATCH NUMBERS
TO MAX DEPTH OF 0.010.
(TYPICAL LOCATION AS
ILLUSTRATED)

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 214403

OCT 22 2020



MATERIAL: UHMW BLACK PER SPEC CONTROL DRAWING D2689
1.00 THICK (MACHINE TO 0.950)
TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

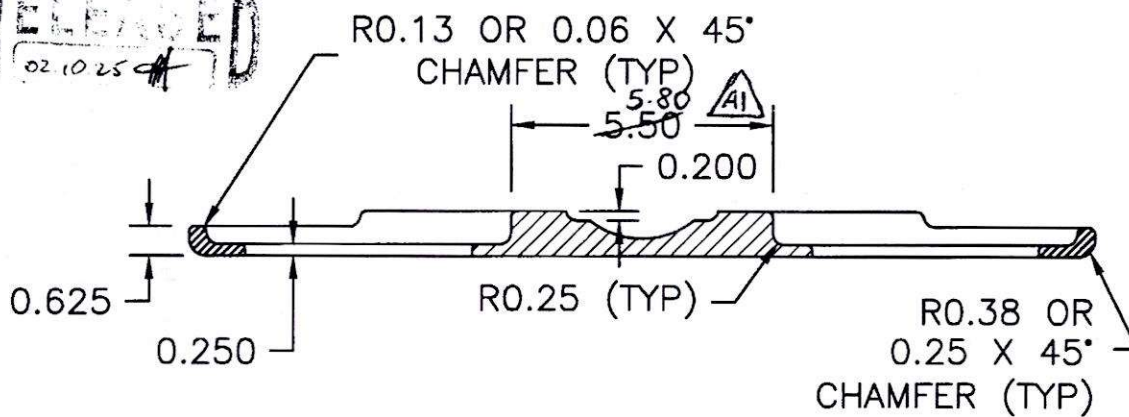
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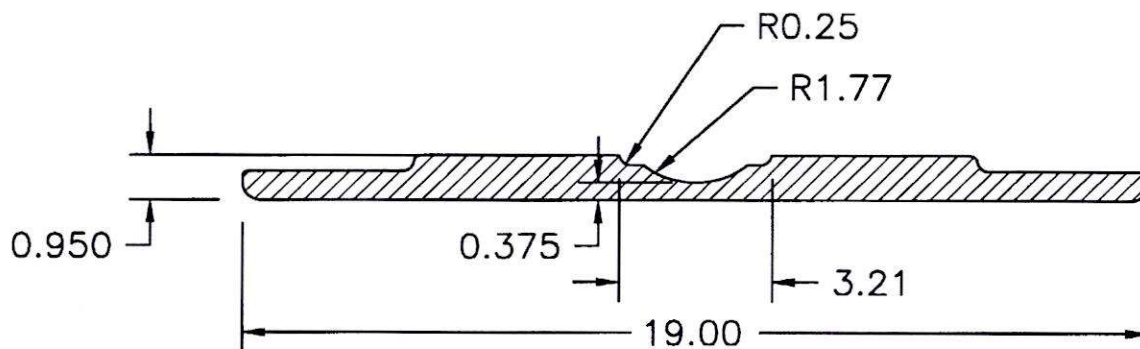


DESIGN 	DRAWN BY 	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED 	APPROVED 	DRAWING NO. D3167	REV. A SHEET 2 OF 2
DATE 02.10.08		TITLE BEARPAW	SCALE 1:4

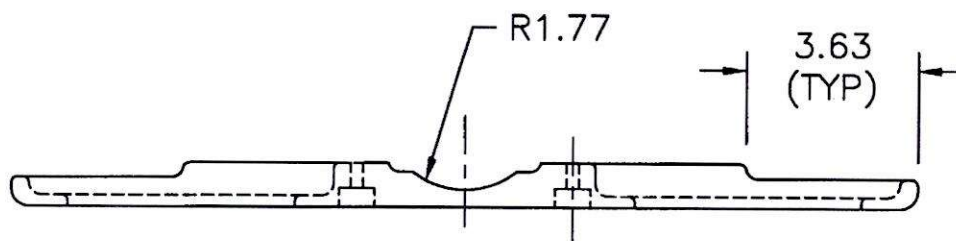
RELEASED
02.10.25



SECTION A-A



SECTION B-B



SECTION C-C

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DART AEROSPACE LTD		Work Order: 214403
Description: Bearpaw		Part Number: D3167-1
Inspection Dwg: D3167	Rev: A1	Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Inspection Sheet	Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
A	0.06 x 45°	+0.030/-0.010	.060			VLR.	ALA-01
B	5.80	+/-0.030	5.79			"	"
C	0.25 x 45°	+/-0.030	.240x45°			"	"
D	R0.25	+/-0.030	R.25			RL	Ref.
E	0.200	+/-0.030	.210			VER.	ALA-01
F	0.250	+/-0.010	.255			MIC	ALA-01
G	0.625	+/-0.030	.630			VER.	ALA-01
H	0.375	+/-0.010	.380			"	"
I	0.950	+0.030/-0.010	.965			"	"
J	3.21	+/-0.030	3.200			"	"
K	19.00	+/-0.030	19.00			tape	Ref.
L	Ø0.260	+0.005/-0.000	.260			VER.	ALA-01
M	Ø0.93	+/-0.030	.930			"	"
N	0.30	+0.030/-0.000	.305			"	"
O	0.375	+/-0.030	.380			"	"
P	7.23	+/-0.030	7.233			"	"
Q	4.54	+/-0.010	4.543			VER.	ALA-01
R	2.00	+/-0.030	1.993			"	"
S	12.000	+/-0.010	12.000			ind dial	ministry
T	6.000	+/-0.010	5.998			VER.	ALA-01
U	23.75	+/-0.030	23.75			tape	Ref.

Measured by: ALA	Audited by: DAS	Prototype Approval:	N/A
Date: 20/11/23	Date: 20-11-25	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	03.09.22	New Issue P/O D130-700-011	KJ/RF	

Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

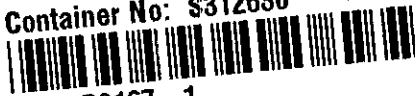
Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date :	Sequence #:	QTY Affected :		MRB (QS1042)	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor	
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Presservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread			
Other/Details:					



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL: 1 613 692-6200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S312630



Part: D3167-1

Job No: 214403

Serial No/Batch: S312630

Revision:

Inspector:

Exp Date:

Instructions: Various STC's

Date: 11/12/20